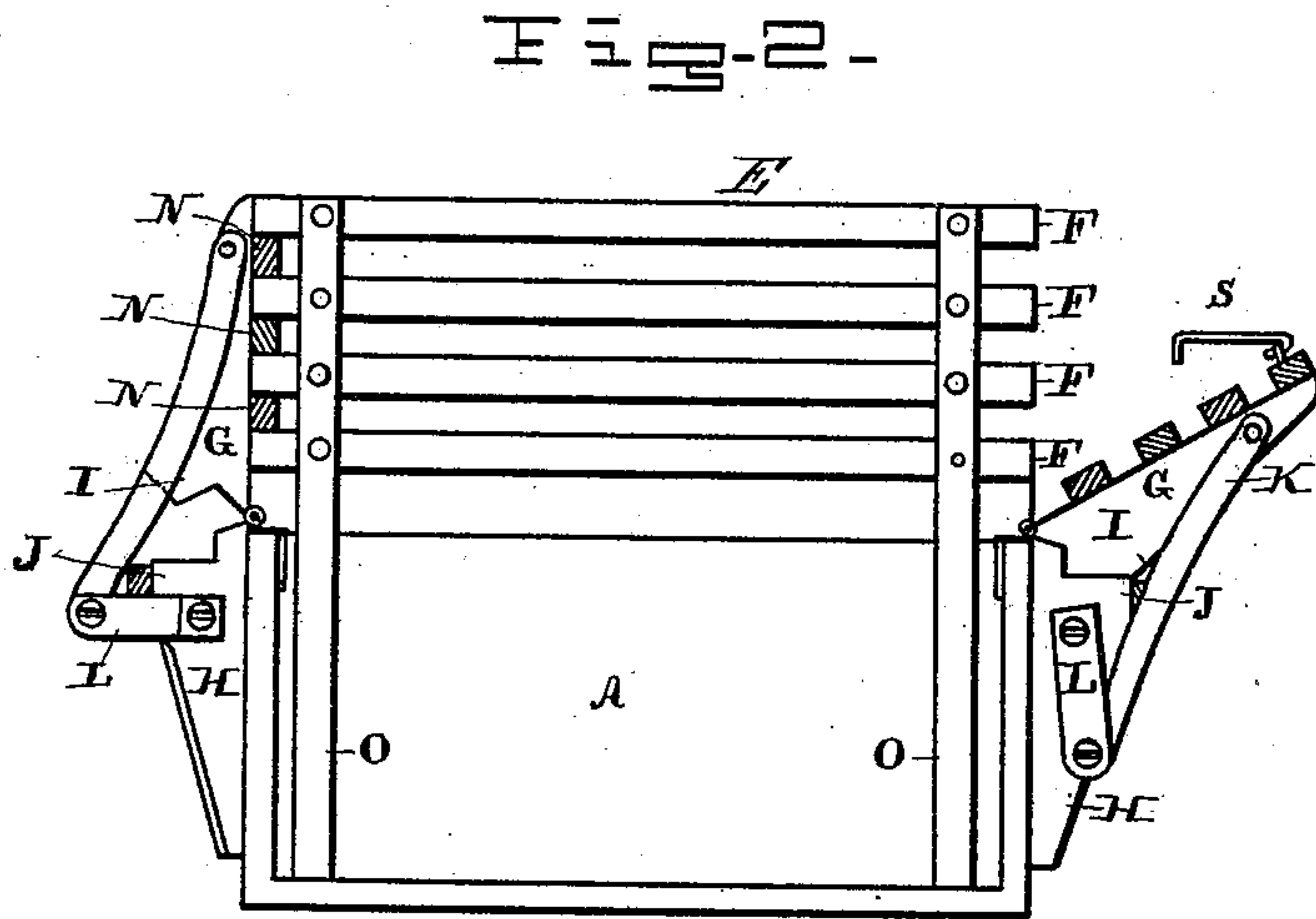
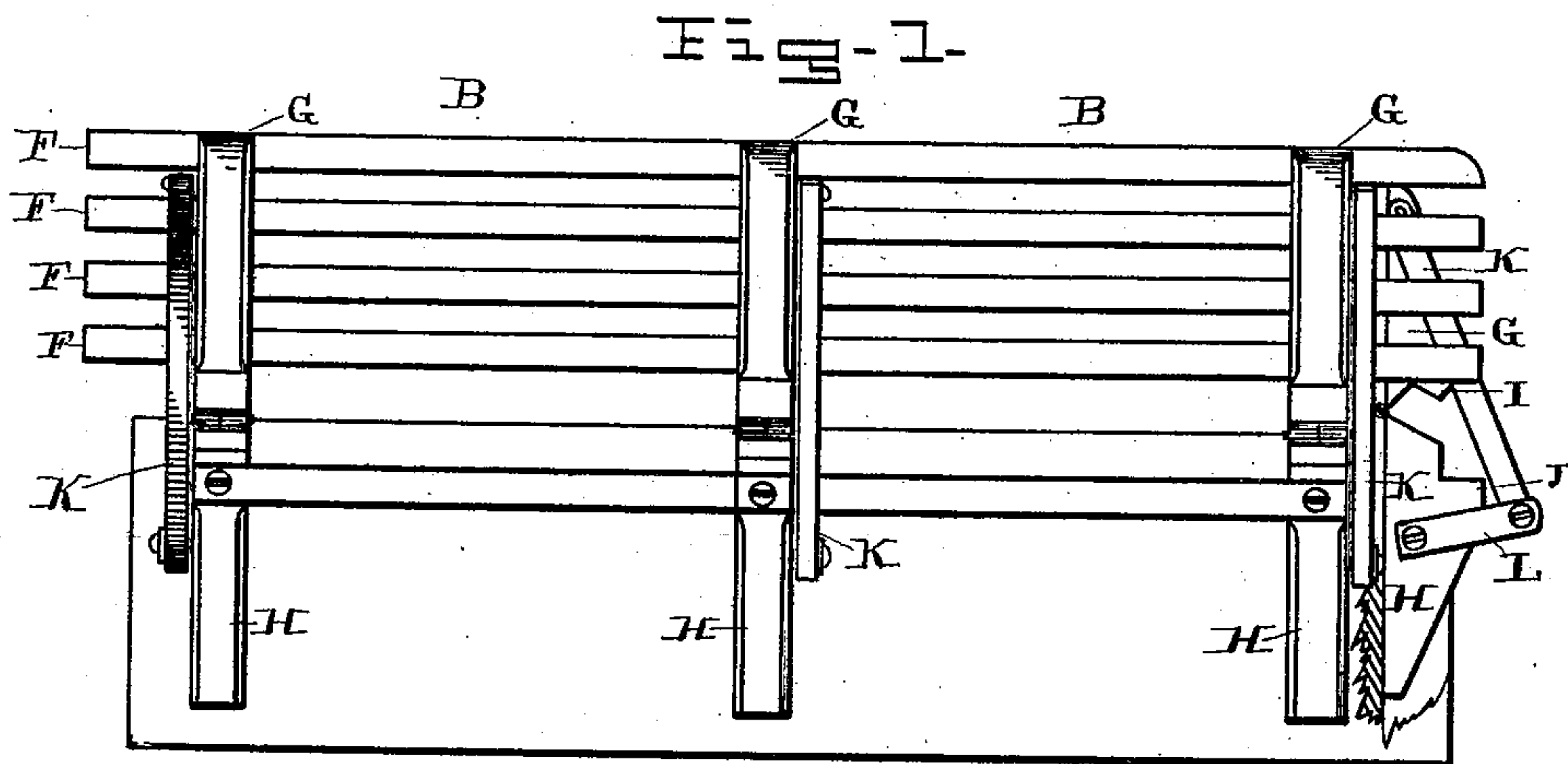


J. B. HOFFMAN.
Hay-Rack.

No. 202,347.

Patented April 16, 1878.



WITNESSES-

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Albin M. Long

INVENTOR-
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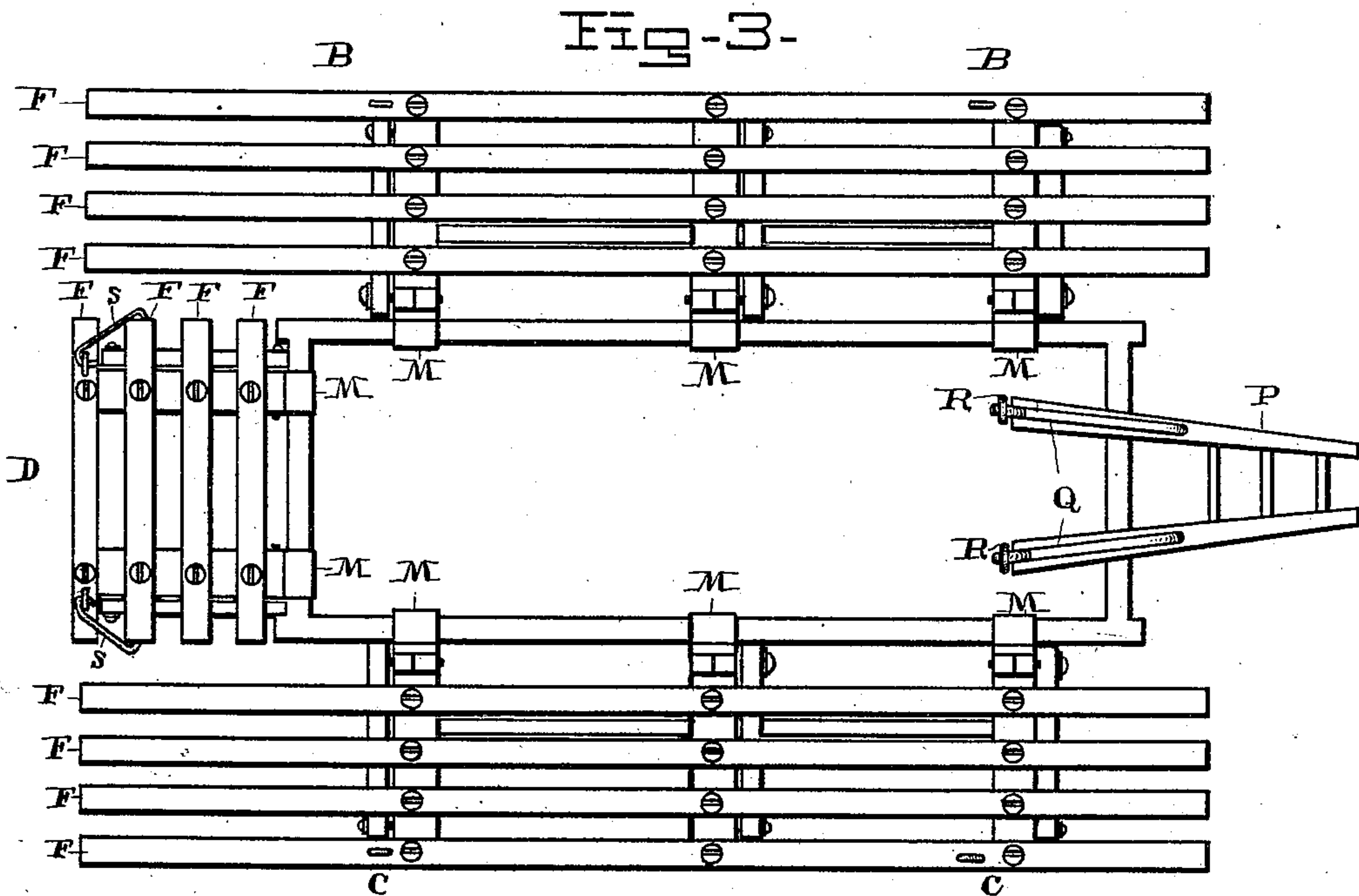


Fig-4-

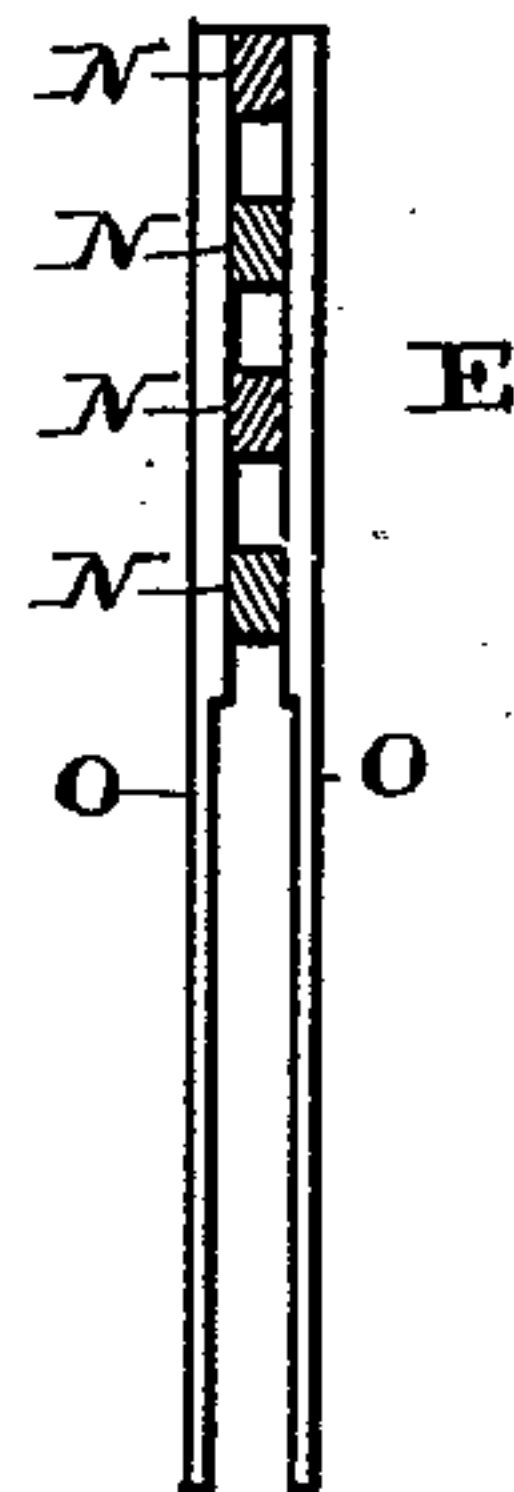
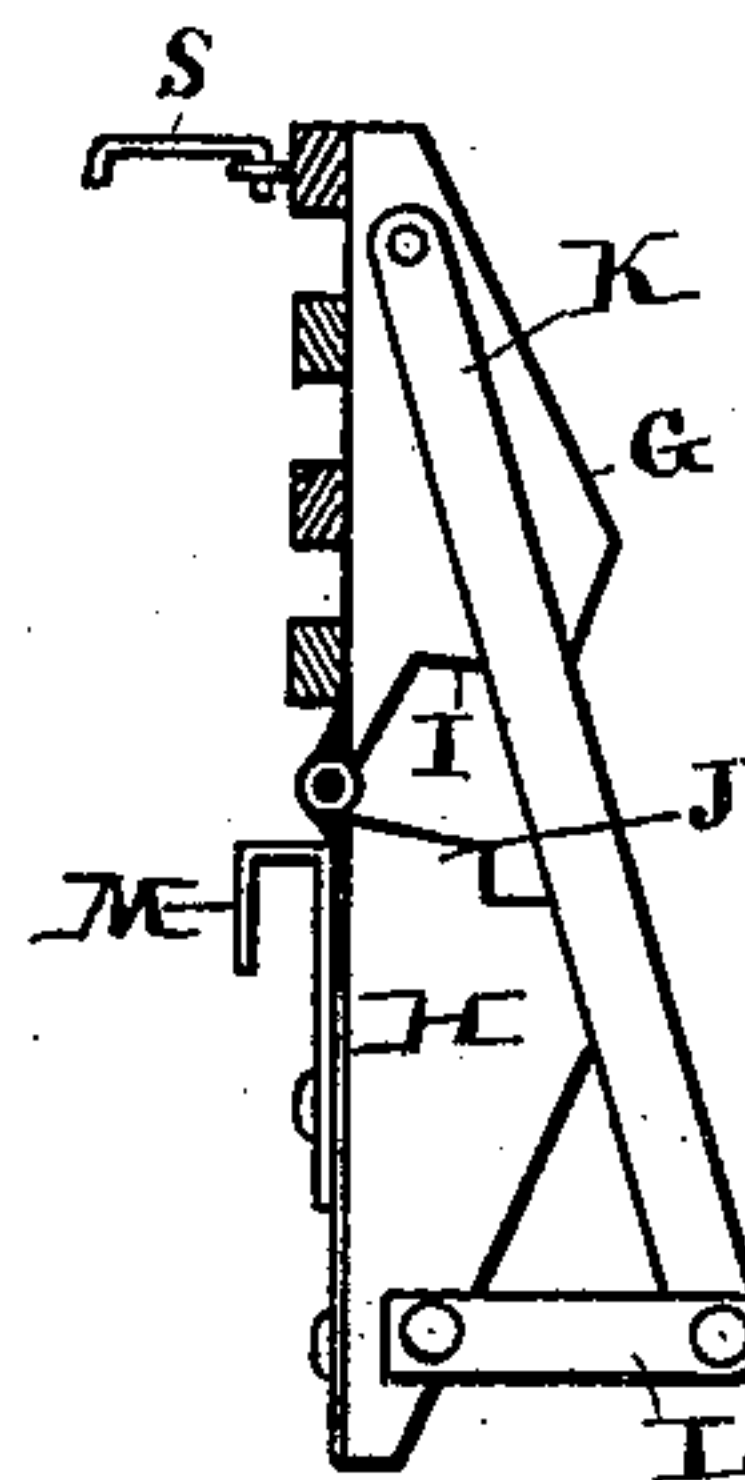


Fig-5-



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UNITED STATES PATENT OFFICE.

JOHN B. HOFFMAN, OF WATERLOO, IOWA.

IMPROVEMENT IN HAY-RACKS.

Specification forming part of Letters Patent No. **202,347**, dated April 16, 1878; application filed February 21, 1878.

To all whom it may concern:

Be it known that I, J. B. HOFFMAN, of Waterloo, in the county of Black Hawk and State of Iowa, have invented certain new and useful Improvements in Hay-Wagons; and I do hereby declare that the following is a full, clear, and exact description thereof.

This invention relates to certain improvements in hay-racks; and the invention consists in an adjustable and detachable hay-rack for wagons, which I will hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and arrangement, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

Figure 1 is a side elevation. Fig. 2 is an end view from the rear, with the tail-board removed, showing one of the racks lowered and the other up, as in Fig. 1. Fig. 3 is a top view, showing the position of the racks on a wagon when used for hauling hay. Fig. 4 is an end view of the front rack, and Fig. 5 is an end view of one of the side racks.

A represents an ordinary wagon-body. B and C denote the side racks; D, the tail-rack, and E the front rack. The racks B, C, and D consist of longitudinally-arranged strips F, held together by arms G, hinged to a second arm, H, as shown in Fig. 5 of drawing. These arms are constructed with knees I and J. The upper knee I fits into and rests on the lower knee J, as shown in Fig. 2 of drawing, the seat or resting-point being lower than the hinge, in order to ease off the strain on the hinge and hold the rack at an obtuse angle with increased rigidity. Near the top of the arm G is secured a brace, K, which extends down, having its lower end pivoted to one end of an arm, L, the other end of said arm L being pivoted to the arm H, as shown. This brace K serves to assist in supporting the rack when lowered and the wagon used for hauling hay.

The arm H is provided with a hook, M, as shown in Fig. 5 of drawing, for attachment of the rack to the wagon-body.

The tail-rack D is provided with hinged arms G and H, identical in construction to those of the side racks, which are provided with hooks M for attachment of this rack to the wagon-body.

The front rack E is constructed of strips N, held together at each end by two vertical pieces, O. These pieces O extend down, as shown, to receive the front of the wagon-body, by which it is supported.

When it is desired to use the wagon for hauling hay, the tail and side racks are lowered, as shown in Fig. 3 of drawing, the rack E detached, and the standard P used in its place. This standard is held in place by hooks Q engaging with staples or eyes R in the bottom of the wagon.

These racks may be placed on any ordinary farm-wagon. They are provided with hooks S, to hold them up in a vertical position, as shown in Fig. 1 of drawing, and in which position they serve as body-extensions, to be used when hauling corn, or even live-stock, as may be desired.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the arms G and H, hinged together, as shown, and constructed with knees I J, substantially as described, with the brace K and arm L, all arranged substantially as shown, and for the purpose set forth.

2. The combination of the body A, racks B, C, and D, adjustable and detachable, with the standard P, for the purpose set forth.

3. The combination of the adjustable and detachable racks B C D and front rack E, provided with hooks S, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOHN B. HOFFMAN.

Witnesses:

JOSEPH H. KUHN,
C. W. CORWIN.